



fish lines

**Asian Carp
and the 72nd Midwest
Fish and Wildlife
Conference**

**Partners for
Fish and Wildlife-
Black River Road
Crossing Improvement**

Fish Lines

Fisheries & Aquatic Resources Program - Midwest Region

The Mission of the U.S. Fish & Wildlife Service: working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

The vision of the Service's Fisheries Program is working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and to support Federal mitigation programs for the benefit of the American public. Implementing this vision will help the Fisheries Program do more for aquatic resources and the people who value and depend on them through enhanced partnerships, scientific integrity, and a balanced approach to conservation.

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Asian Carp and the 72nd Midwest Fish and Wildlife Conference

Staff from the Carterville FWCO participated in the 72nd Midwest Fish and Wildlife Conference.

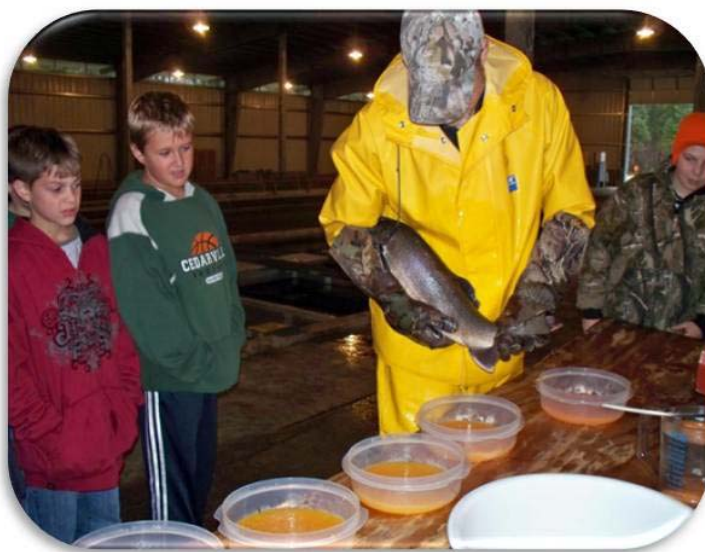
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Partners for Fish and Wildlife - Black River Road Crossing Improvement

Habitat improvement projects have been funded in the Upper Black River watershed since 1998.

BY HEATHER RAWLINGS, ALPENA FWCO



-USFWS

Fin clipper Tony Wizauer adds milt from a male lake trout to a container of eggs to fertilize them.

To view other issues of "Fish Lines," visit our website at:
<http://www.fws.gov/midwest/Fisheries/library/fishlines.htm>



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This Partners for Fish and Wildlife Program project in Bayfield County restored and enhanced this Wisconsin site.

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Asian Carp and the 72nd Midwest Fish and Wildlife Conference

BY BRAD ROGERS, CARTERVILLE FWCO

On December 4th -7th, 2011, staff from the Carterville Fish and Wildlife Conservation Office (FWCO) traveled to Des Moines, Iowa to participate in the 72nd Midwest Fish and Wildlife Conference. The theme of this year's conference was "Reconnecting People with Natural Resources". The conference included 13 symposia, including one dedicated to Asian carp. This conference gave all of our staff the opportunity to attend the Asian carp presentations, put faces to some familiar names, and catch up with old friends and partners.

project, has been underway for a little over a year now. The DIDSON project is a two part project that examines the behavior of caged fish that are forced to swim through the electric barrier, and the natural behavior of wild fish that are located in and around the barrier.

In 2011, Carterville FWCO spent three weeks at the barrier testing equipment and methods to determine which would be best to help fulfill the objectives of our project. When actual field testing began, we were

able to complete 133 caged fish trials using 666 fish. Wild fish observations were made at 240 sites totaling 40 hours of in-water observations.

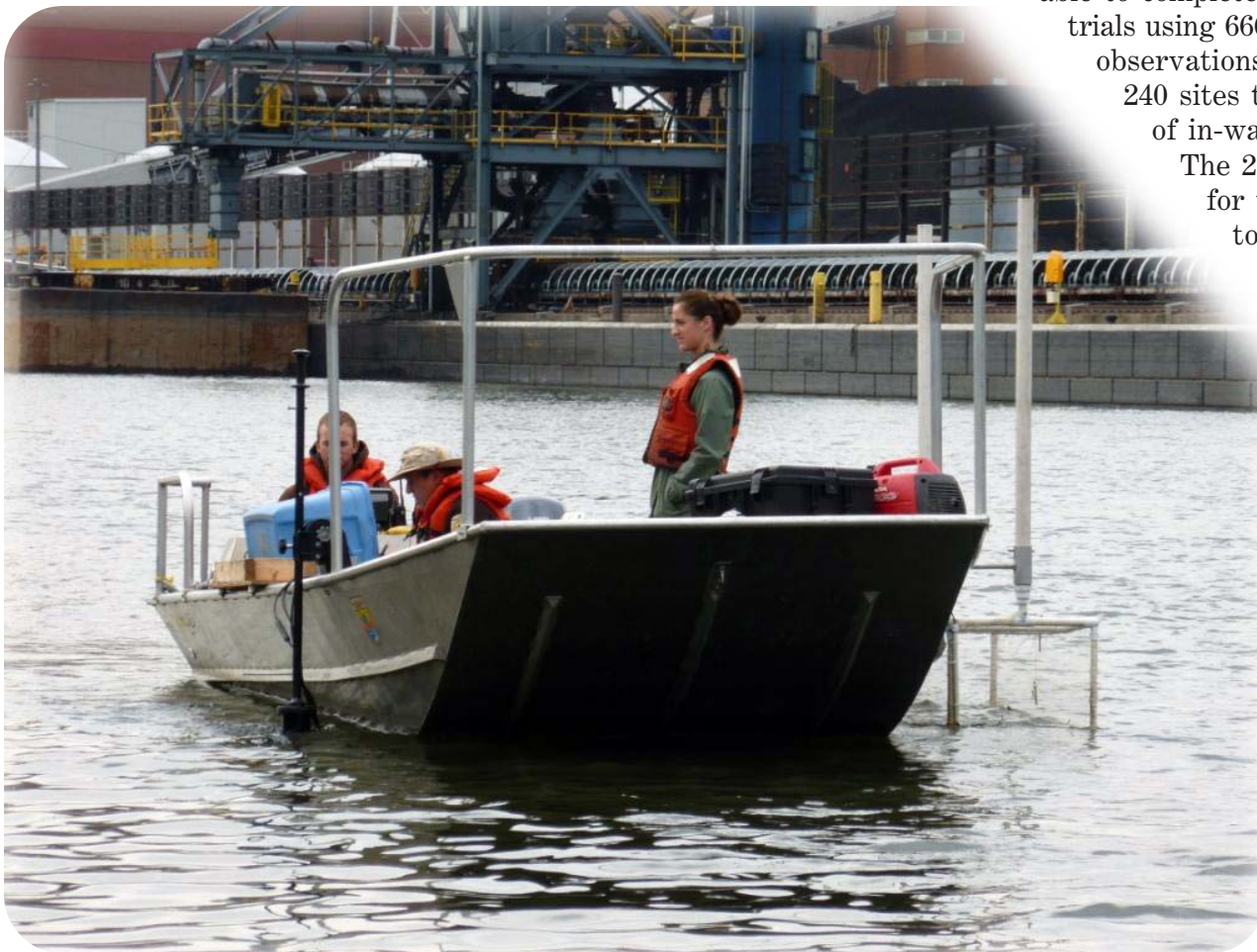
The 2011 field effort for this project

totaled approximately 12 weeks and 2,380

person hours. This is a huge effort and the Carterville FWCO would like to thank everyone in Region 3, and our partner agencies, who have taken time to participate in this project.

The data collected in 2011 is still being reviewed and analyzed. With the addition of

several new staff to the Carterville office, we hope to have all 2011 data analyzed and a report out by late spring or early summer 2012. In the meantime, our crews have continued winter sampling at the fish



-USFWS

Biologist Brad Rogers, Mark Steingraber and Teresa Campbell from the Carterville and La Crosse Fish and Wildlife Conservation Offices use a DIDSON (Dual-Frequency Identification Sonar) to perform a caged fish behavior trial near the electric fish barrier, located in the Chicago Sanitary and Shipping Canal.

During the Asian carp symposium, Brad Rogers presented an update on the fish behavior study at the electric fish barrier in the Chicago Sanitary and Shipping Canal. This project, referred to as the DIDSON (Dual-Frequency Identification Sonar)



-USFWS

Jeff Stewart tries to keep the computer dry while performing wild fish surveys at the electric fish barrier in the Chicago Sanitary and Shipping Canal.

barrier. Four more weeks of sampling are planned for January and early February 2012.

On the last day of the Midwest Conference, there was time set aside for a partial gathering of the Asian Carp Monitoring and Rapid Response Work Group (Work Group). At this gathering, representatives from each of the member agencies provided reports on all the monitoring activities that took place during 2011. Members of the Work Group also took time to review the data that was gathered and identify gaps in that information. The last agenda item was to discuss 2012 sampling plans. The majority of this time was spent discussing the environmental DNA sampling strategy, but a deadline for the submission of other updated sampling plans was also determined.

The 72nd Midwest Fish and Wildlife Conference provided the perfect venue

to share information and discuss Asian carp issues. It was a valuable opportunity not only for the Cartersville FWCO staff, but also many other agencies and managers, to get caught up on the many projects and activities that make up the Asian carp world. With a fresh understanding of the issues, and a direction for the future, the Cartersville FWCO is armed and ready to continue the fight against Asian carp in 2012.



-USFWS

Brad Rogers and Heather Calkins use a DIDSON (Dual-Frequency Identification Sonar) to perform wild fish surveys at the electric fish barrier in the Chicago Sanitary and Shipping Canal.

For further info about the Cartersville FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/cartersville.pdf>

Partners for Fish and Wildlife - Black River Road Crossing Improvement

BY HEATHER RAWLINGS, ALPENA FWCO

Biologist Heather Rawlings of the Alpena Fish and Wildlife Conservation Office (FWCO) met with Huron Pines staff Lisha Ramsdell and Abby Ertel on December 7th, 2011 at the Blue Lakes Road/Stewart Creek crossing in Montmorency County, Michigan. This crossing is a part of the Upper Black River watershed, a focus area for Alpena FWCO's Partners for Fish and Wildlife Program (Partners Program). Habitat improvement projects have been funded in the Upper Black River watershed since 1998, and the Alpena FWCO has been

for the East Lansing Ecological Services Field Office (FO).

Scheduled for construction in 2012, the culvert at this road crossing will be replaced with a much larger elliptical culvert that can accommodate a 100-year storm event and will allow for uninhibited fish passage. An estimated 43 tons of sand and silt enter Stewart Creek from the Blue Lakes Road crossing annually. This sediment loading will be virtually eliminated by hardening the road approaches with seal-coat, constructing proper ditches and turn-outs, and raising the road bed at the culvert to divert water away from the stream and allow road run-off to filter through vegetation before entering the stream.

This road crossing has been targeted for repair/replacement for years, but improvements were delayed due to the hesitancy of working in the vicinity of a federally endangered species, the Hungerford's crawling water beetle (beetle). Discovered in the creek during a 2009 survey conducted by Great Lakes Ecosystems, Stewart Creek supports a population of the federally endangered beetle, which may be impacted by the construction. Individuals have been located both above and below the

culvert. The Partners Program will enter into formal consultation for this project with the East Lansing FO in early 2012. All parties involved wish to have a plan in place and paperwork completed well in advance of the proposed fall 2012 construction date. Once completed, the new culvert will allow for passage of all aquatic organisms, including brook trout.



-USFWS/Heather Rawlings

The Blue Lakes Road/Stewart Creek culvert will be replaced with a much larger elliptical culvert that can accommodate a 100-year storm event and will allow for uninhibited fish passage.

partnering with Huron Pines and local county road commissions since the inception of this work. The meeting with Huron Pines involved walking several sections of the creek to assess current conditions, determine action areas, and gather data for incorporation into the Biological Assessment being prepared

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>

Confluence

BY COLBY WRASSE, COLUMBIA FWCO

1. a coming together of people or things;
2. a flowing together of two or more streams

The Missouri and Mississippi rivers converge near St. Louis, Missouri, in a large expanse of water, where east meets west and north meets south. For centuries, the confluence of these two great rivers has been a gathering spot of historic importance. The area surrounding the confluence supported one of the



-USFWS/ColbyWrasse

Top row left to right: Dario Ramirez (Mexico), Berth Silva (Mexico), Briet (Belgium), Sun (South Korea), Rosalba Uribe (Mexico), Jeanette Fonseca (Scholarships for Education and Economic Development director), Cristian Cruz (El Salvador), Jimmy Osias (Haiti), Michael Victor (Haiti), and Elix Diaz (Nicaragua) pose for a picture during a river clean-up sponsored by Missouri River Relief.

largest and most sophisticated Native America civilizations, and signs of these indigenous people can still be seen in the large earthen Cahokia Mounds which tower over the Mississippi River valley. It was at the confluence that Lewis and Clark camped for the winter before beginning their legendary journey. And one of America's great cities (St. Louis) grew up around the confluence, with more than two million people now calling the area home.

Last October, the confluence once again served as a gathering site as 300 volunteers met to clean-up the shores of these massive rivers. The event was the final stop of Missouri River Relief's (MRR) busy 2011 river clean-up season. We at the Columbia Fish and Wildlife Conservation Office (FWCO) assisted, as I piloted one of our large john boats, ferrying volunteers to clean-up sites along the river. While I have helped at several MRR events in the past, this one was extra special, as I had the opportunity to meet some volunteers who had come a very long way.

Partnerships are essential for effective fisheries conservation. Many agencies, organizations, and private individuals are involved in fisheries conservation and management, but no one can do it alone. Together, these stakeholders combine efforts and expertise to tackle challenges facing fisheries conservation. The success of these partnerships will depend on strong, two-way communications and accountability.

On my boat that day was a group of international students from St. Louis Community College's SEED

(Scholarships for Education and Economic Development) program. The SEED program is a partnership between the U.S. Agency for International Development, Georgetown University and community colleges across the United States. The program awards scholarships to qualified young people from Mexico, the Caribbean, and Central America. The students come here to learn about our culture, serve as ambassadors for their home lands, and learn valuable skills which they can use to better their countries once they return. The SEED students were also joined by two international students from the "Youth for Understanding" program.

I had the opportunity to work with nine enthusiastic students representing six different countries. Although the morning was cool, St. Louis Community College's SEED director Jeanette Fonseca had her students fired up and ready to go. We loaded into the boat, shoved off and motored up the Missouri River a couple miles. As I brought the boat up on plane, cheers erupted from the eager students. They tackled the dirty work of river clean-up with good natured cheer. After a couple hours, they had collected a large amount of river trash highlighted by a pink-and-white fútbol – that's soccer ball to most of you reading this.

After the students were finished filling their garbage bags, I took them downstream to the confluence. I shut down the motor and we talked for a moment about our longest river and our largest river and this place where they meet. To our left lay the Missouri River and the western Rocky Mountains. Directly in front of us you could follow the Mississippi River all the way to Minnesota's north woods, and behind us the Mississippi River flowed south to the Gulf of Mexico. To me, it was remarkable to have people from seven different countries together on this one small boat, at this historic crossroads.

Missouri River Relief once again succeeded in bringing together a diverse group of people for a common goal. During this particular clean-up event, we removed more than 14 tons of trash from the river. The good work MRR performs is only possible because of the volunteer efforts from people like the

SEED students. These young people did a wonderful job representing their perspective countries. I wish these students the best of luck in their future endeavors, and I hope the experience left a lasting impression – I know it did for me.

To learn more about SEED and Youth for Understanding programs see the following website: http://www.stlcc.edu/Programs/Study_Abroad/International_Programs.html. To learn more about Missouri River Relief go to: <http://www.riverrelief.org/>.

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>

This is What Friends are for...Thanks

BY MARK STEINGRAEBER, LACROSSE FWCO

In the case of three Fisheries Program offices in western Wisconsin, the *Friends of the Upper Mississippi Fishery Services* (FUMFS) provide a dependable source of public support for our collective efforts to inform and educate the public on aquatic environmental issues, as well as protect and restore populations of native aquatic fauna. FUMFS members do so, in part, by sponsoring local activities and events during the year that educate and encourage young people and their families to become active friends, users and stewards of the upper Mississippi River. Additional support from FUMFS comes in a variety of ways - from assembling mussel propagation cages to repairing nets, hawking t-shirts to untangling fishing lines, writing letters of recommendation to cleaning a stringer of fish, our friends are always there for us.

Most recently, FUMFS submitted a proposal to the Paul E. Stry Foundation of La Crosse for a

\$13,000 grant to purchase and set-up a display of live aquatic fauna in the visitor contact area at the Fish and Wildlife Service's Fish and Wildlife Resource Center in Onalaska. Among other improvements being planned here, the proposed 540-gallon aquarium would be used to exhibit a variety of native fish and mussels and would serve as the focal educational exhibit for visitors to the La Crosse Fish and Wildlife Conservation Office (FWCO) and the La Crosse Fish Health Center (FHC).

Stry Foundation board members met last month to consider all of the grant applications they received and later announced the FUMFS proposal was one of several environmental education efforts selected for funding in 2012.

Due to this collaborative effort, the New Year is off to a great start for the FWCO and FHC! Learn more about FUMFS at: www.fumfs.org.

For further info about the La Crosse FWCO: <http://www.fws.gov/midwest/lacrossefisheries/>

Friends Celebrate the Holiday Season

BY CURT FRIEZ, PENDILLS CREEK NFH

On December 9, 2011 the *Friends of Pendills Creek Hatchery* celebrated their annual Christmas Party, which has grown into a yearly tradition for the group. This year, 48 attendees each brought a dish to share and a gift for the ever-popular Christmas dice game. The Friends group also held a brief meeting talking about upcoming projects and activities, and the officers gave their reports. The hatchery staff are invited to the party each year, and the festive evening events were highlighted with the dice game in which you are placed into groups and each group has a pair of dice. Each participant shakes the dice and if doubles are thrown, you pick a gift on the gift table.

Once all the gifts are picked up, the game continues but instead you go and take a gift from another member. At the end of the game, anyone (like me) whom did not have a gift could go and take one from anyone that had more than one gift. Then everyone opens the gifts up. Surprises included candy, lumps of coal and fruit cake.

I feel parties like this are needed to foster camaraderie and put some fun and laughter into what is normally a business-like atmosphere. This is also a good time to recognize the group's accomplishments for the year and to thank them for all their hard work and dedication.

For further info about the Pendills Creek NFH/Sullivan Creek NFH: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/pendills.pdf>

Is that a Pallid Sturgeon?

BY ADAM MCDANIEL, COLUMBIA FWCO

That question, along with many others is commonly fielded by Columbia Fish and Wildlife Conservation Office (FWCO) staff while sampling on the Missouri River. Columbia FWCO is always eager to help volunteers, students and fellow outdoor enthusiasts



-USFWS/HeatherCalkins

A Columbia Fish and Wildlife Conservation Office volunteer poses with his first pallid sturgeon that was captured during a fishery assessment on the Missouri River.

experience the Missouri River and its inhabitants. The first of November marks the beginning of sturgeon season for the Pallid Sturgeon Population Assessment and in turn a very busy time of year for the office. During this time, volunteers are more than welcome to assist crews in completing their round of sampling.

Multiple students from the University of Missouri-Columbia come out every fall to lend a helping hand and gain some extra credit points in their

Fisheries Techniques class. Members of the Master Naturalists in Columbia and local people up and down the Lower Missouri River also contribute a helping hand in sampling. The weather is characteristic of fall and a float suit is a “must have” when the mercury starts falling and the wind is blowing out of the northwest, with mallards looking for a calm spot to rest a while. Students and volunteers still brave the weather with the rest of us and get to experience first hand what sampling the Missouri River in November and December is really like. Even though the weather is not always ideal, all it takes is a glimmer of sun peaking from behind the clouds or a hot cup of coffee in the warm truck to keep spirits high and wanting one more gill net to pull in with the hopes that another pallid sturgeon might surface.

The first half of sturgeon season sampling consisted of 130 gill nets and 104 trotlines with 4,160 hooks baited and deployed. Thirty pallid sturgeon and five shovelnose-pallid sturgeon hybrids were captured and released during the first half of sturgeon season. We at the Columbia FWCO truly appreciate the volunteers and students willing to join us on those frosty mornings in an effort to learn more about the Missouri River and its inhabitants.

The Fisheries Program maintains and implements a comprehensive set of tools and activities to conserve and manage self-sustaining populations of native fish and other aquatic resources. These tools and activities are linked to management and recovery plans that help achieve restoration and recovery goals, provide recreational benefits, and address Federal trust responsibilities. Sound science, effective partnerships, and careful planning and evaluation are integral to conservation and management efforts.

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>

Grant received to Support Brook Trout Project

BY ANNA VARIAN, ASHLAND FWCO

The Ashland Fish and Wildlife Conservation Office (FWCO) was recently awarded a \$45,000 “Bring Back the Natives” grant from the National Fish and Wildlife Foundation to support 2012 field season activities to study the status, distribution and threats to brook trout in the Lake Superior basin. Partners contributing to this grant included the Wild Rivers Chapter of Trout Unlimited, Michigan Department of Natural Resources and

Keweenaw Bay Indian Community. Funds for this project will also come from the Great Lakes Restoration Initiative.

The goals of this project are to assess the status, distribution and threats of brook trout populations in their native range in five states of the upper Midwest and Great Lakes region, and to use this information to develop a model to predict brook trout status in areas lacking current data. A GIS based map of brook trout status across the upper Great Lakes and upper



-USFWS/Anna Varian

Underwater photo of a Michigan brook trout.

Midwest will be produced, and key threats to the species in this region will be identified. We will examine how stressors such as land use, road density,

For further info about the Ashland FWCO: <http://www.fws.gov/midwest/ashland/>

mining, non-native fishes, and others impact brook trout status and distribution. With climate change likely to affect the cold water streams that brook trout rely on, understanding their current status and distribution, along with the current threats they face, will help resource managers strategically conserve and protect remnant populations, while working toward restoring ones that are locally extirpated. This project will build upon work done by the Driftless Area Restoration Effort and be compatible with the Eastern Brook Trout Joint Venture, in which current fishery data was used to map the status, distribution and threats of brook trout throughout 17 states in the brook trout's native eastern range.

The 2011 field season focused on Michigan's Lake Superior basin. Efforts in 2012 will move forward into Wisconsin and Minnesota's Lake Superior basin, while continuing to work on data gathered in Michigan.

Sullivan Creek NFH 2011 Lake Trout Egg Shipments

BY CRYSTAL LEGAULT ANDERSEN, PENDILLS CREEK NFH

Sullivan Creek National Fish Hatchery (NFH) ships eyed lake trout eggs to other federal, state, tribal and educational facilities every November and December. This year Sullivan Creek shipped over 4.2 million eggs. Most of the eyed eggs went to Jordan River, Iron River, Pendills Creek and Allegheny NFHs, and Marquette State Fish Hatchery in support of lake trout rehabilitation in the Great Lakes. One small dab of eggs was also sent to the Les Cheneaux Schools in Cedarville, Michigan, for hatching and grow-out in the classroom.

The whole egg process began with spawning season, which usually starts by the middle of September and runs until the middle of November each year. Spawning season is a very busy time of year for the hatchery crew, and staff from the Jordan River NFH helped out during our three busiest weeks. The adult lake trout are anesthetized so the eggs and milt can be collected and mixed together for fertilization. Once the eggs are fertilized, disinfected with iodine and water hardened, they are measured and counted into

vertical stack incubators. The eggs will slowly develop inside the incubators for one to two months depending on how cold the water temperatures are, and will become eyed eggs (where you can easily see the eye of the developing fish).

The next step, from the end of November to the end of December, is to run all the eyed eggs through mechanical egg pickers which have a light sensitive photo-eye. The pickers shoot a ray of light through each egg, and if the light goes through the egg, it is a live egg and goes in one bucket; if the light cannot go through the egg, it is a dead egg and goes into a different bucket. We run all our eggs through two mechanical pickers, and hand pick them with tweezers or suction bulbs at least once. The eyed eggs are again measured and put back in their incubators until shipments can be set up.

Eyed eggs are carefully packed into Styrofoam coolers and either shipped via FedEx, UPS or driven by hatchery staff. The little fish inside the eggs are looking at you the entire time, 4.2 million sets of eyes!

For further info about the Pendills Creek NFH/Sullivan Creek NFH: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/pendills.pdf>

Black Carp - Coming to a River near You?

BY SAM FINNEY, CARTERVILLE FWCO

Black carp is an Asian carp species that does not get as much attention as some of its flying kin. But maybe they should. Black carp grow very large, up to 6 feet in length and up to 150 pounds. Black carp feast primarily on a diet of mollusks (snails and mussels). This diet is why they are here and why biologists are concerned.

Black carp were first imported into the United States in 1973 to help fish farmers combat the ram's horn snail, an intermediate host of fish disease that was wreaking havoc on catfish and striped bass farms, particularly in the 1990's. Black carp seem to be the only current environmentally and economically feasible way of controlling mollusks in aquaculture, although research into alternatives continues. Some effort has been put towards making sterile (triploid) black carp to minimize the chances of reproduction upon escape. Most states, but not all, require triploid only black carp to be used. Further, fertile (diploid) fish must be held on facilities to make sterile triploids. Hence, the risk of escapement is present and has been confirmed. The major concern with black carp in the wild is their feeding habits. They feed on mollusks, including native mussels which are highly imperiled, with many mussel species at risk of extinction.

So where are black carp? As mentioned, they are held on fish farms, primarily in the lower Mississippi River valley states, but in other states as well. And they have escaped into the rivers. The first wild

captures were reported in the 1990's. Most of these captures came from the lower Mississippi River basin where the farms are located, but one odd capture came from

Horseshoe Lake in southern Illinois. Most of the captures were from commercial fishermen that were not targeting the species, one that is notoriously difficult to capture. This is likely an indication of under representation of the true numbers that are out in the river. More recently, the captures of black carp in the wild have become more numerous and frequent. Black carp have recently been captured in the Mississippi River in Illinois and Missouri waters. They are moving north, a phenomenon that is somewhat predictable and unfortunately expected based on their native range of temperatures and habitat requirements.

Biologists will be on the lookout for black carp in hopes of reducing their populations and preventing another Asian carp species from expanding and proliferating in the Mississippi River basin and potentially elsewhere.

For further info about the Carterville FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/carterville.pdf>

Last Call to Chicago

BY NICHOLAS BROOMFIELD, LA CROSSE FWCO

The week of December 5th, Katie Holland and I of the La Crosse Fish and Wildlife Conservation Office (FWCO) bundled up for the final sampling trip to Chicago during 2011. Here we were helped by Illinois Department of Natural Resources biologist Tristan Widloe, a friend and former roommate of mine at Western Illinois University. Our task was to electrofish at fixed sites in the Chicago Area Waterway System (CAWS), above the electric dispersal barrier, searching for invasive Asian carps one last time this year.

We visited the Little Calumet River on Tuesday. As we pulled off the water at dusk, a blown taillight stared back at me, ensuring that a long day was about to get still longer.

Wednesday found us taking a long boat ride to the North Shore Channel, where we broke through skim ice to make the last few miles above the final wastewater discharge. We managed to get a few Chicago River sites done too, making for another long but productive day. Thursday we sampled Lake Calumet, then loaded up and drove across town to finish the Chicago River. That closed the book on 2011 CAWS fixed site electrofishing.

During our 12 hours of electrofishing on this trip, we caught 3,527 fish (23 species). Throughout the year, fixed sites above the dispersal barrier were electrofished a total of 211 hours with more than 52,000 fish (61 species) caught, but...no Asian carps. Planning has already begun for the 2012 sampling season, and it won't be long before it's here.

For further info about the La Crosse FWCO: <http://www.fws.gov/midwest/lacrossefisheries/>

Aquatic Invasive Species

Aquatic invasive species are one of the most significant threats to fish and wildlife and their habitats. Local and regional economies are severely affected with control costs exceeding \$123 billion annually. The Fisheries Program has focused its efforts on preventing introductions of new aquatic invasive species, detecting and monitoring new and established invasives, controlling established invasives, providing coordination and technical assistance to organizations that respond to invasive species problems, and developing comprehensive, integrated plans to fight aquatic invasive species.

A Tour of the Jordan River NFH

BY HEATHER RAWLINGS, ALPENA FWCO

Alpena Fish and Wildlife Conservation Office (FWCO) and the Jordan River National Fish Hatchery (NFH) teamed up to organize and lead a field trip to the Jordan River NFH for Wilson Elementary School's Fifth Grade classes (Alpena Public Schools). On December 21, 2011, 50 children, 3 teachers and 4 parents were treated to a tour of the



-USFWS/Heather Rawlings

Alpena, Michigan's Wilson School 5th grade students seemed to enjoy a brook trout dissection during a tour of the Jordan River National Fish Hatchery.

hatchery by John Johnston, an egg sample-count exercise by Roger Gordon, and a brook trout dissection by Paul Haver, Anjanette Bowen and Heather Rawlings. The dissection was the highlight of the trip for most students. After some initial hesitancy, the

kids became enthusiastic about locating all of the internal organs. The kids and adults had a fantastic time and were very impressed with the hatchery.

The Alpena FWCO has been working with this specific group of children since they were in 2nd grade. We have been in their classroom once a month while school is in session to teach a science lesson that fits with their curriculum. This trip was part of the Alpena FWCO's Children & Nature Program, and our intent is to repeatedly expose a select group of children to the natural world and assist with teaching their science curriculum to make it "fun" as well as educational. At the end of the 2012 school year (as the children move on to Junior High), we will compare testing and behavioral scores with children that were not exposed to our tutelage, to see if there are any differences.

As the population in the United States continues to grow, the potential for adverse impacts on aquatic resources, including habitat will increase. At the same time, demands for responsible, quality recreational fishing experiences will also increase. The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing, habitat restoration, and education programs and through mitigating impacts of Federal water projects. The Service also recognizes that some aquatic habitats have been irreversibly altered by human activity (i.e. - dam building). To compensate for these significant changes in habitat and lost fishing opportunities, managers often introduce non-native species when native species can no longer survive in the altered habitat.

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>

Sturgeon in the Classroom: Take 3

BY JORGE BUENING, GENOA NFH

The third year of "Sturgeon in the Classroom" kicked off this month with one new classroom receiving a sturgeon; this brings the program's total to six classrooms. Sturgeon in the Classroom is a program at Genoa National Fish Hatchery (NFH) that allows teachers to bring a live lake sturgeon into their classroom. They can then incorporate the sturgeon into lesson plans and give students the responsibility of taking care of their new classroom friend. This year, we welcome our first high school class to the Sturgeon in the Classroom program - Kickapoo High School biology classes taught by Eric Cummings. At Kickapoo Elementary School, Landon Harger and Erica Johnson are continuing their participation in the program. Landon teaches morning and afternoon 4-K classes and Erica teaches Kindergarten. The Viroqua

School District also has two participants, Brian Buening and Lori Lomas. Lori teaches 1st grade and Brian has 4th graders. Bethany Seiser has assumed the responsibility of the sturgeon at the North Crawford School District. Bethany is a 4th grade teacher and we welcome her to the group.

The goal of the Sturgeon in the Classroom program is to teach children of any age about the Genoa NFH and the restoration programs that we are associated with. From these programs we hope that the children can develop an understanding of how the Fish and Wildlife Service and other organizations work to maintain ecosystems and natural resources. This could then lead them down a career path and will hopefully teach them to be more ecologically conscious adults.

For further info about the Genoa NFH: <http://www.fws.gov/midwest/genoa/>

Upper Chippewa River Watershed Restoration Projects – Lower Grindstone and Demon Creek Fish Passage Restorations

BY TED KOEHLER, ASHLAND FWCO

Through the Fish and Wildlife Service's Partners for Fish and Wildlife Program, the Ashland Fish and Wildlife Conservation Office partnered with the Sawyer County Land and Water Conservation Department, Sawyer County Highway Department, Wisconsin Department of Natural Resources and the Lac Courte Oreilles Band of Lake Superior Chippewa to restore fish passage at two road crossings in northern Wisconsin. The crossings are on important cold water brook trout streams in the Chippewa River watershed named Grindstone and Demon Creeks.

These streams are used by recreational fishermen and located near Hayward, Wisconsin, which is a popular fishing/tourist destination and home to the

"Freshwater Fishing Hall of Fame." Both new culverts were properly sized and installed at optimal elevations

within the streambed in order to pass brook trout and other aquatic species. Restoring fish passage at these sites has opened five and one half miles of habitat above the barriers, and has enhanced the upper Chippewa River watershed's fishery for miles both above and below the former barriers.

Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Fisheries Program plays an important role in providing help and support to Tribes as they exercise their sovereignty in the management of their fish and wildlife resources on more than 55 million acres of Federal Indian trust land and in treaty reserved areas.



-Sawyer County/DaleOlson

(Lt. to Rt.) Grindstone Creek site before fish passage restoration and after fish passage improvements. The culvert was perched above the streambed and caused high velocities due to its size. The new culvert is now properly sized and imbedded into the stream, allowing uninhibited passage by brook trout.



-USFWS/TedKoehler

For further info about the Ashland FWCO: <http://www.fws.gov/midwest/ashland/>

ECALS Workshop Gives eDNA Sampling a Boost

BY SAM FINNEY, CARTERVILLE FWCO

On November 17th, Sam Finney of the Cartersville Fish and Wildlife Conservation Office (FWCO) represented the Fish and Wildlife Service at the U.S. Army Corps of Engineers (Corps) Environmental



This Chicago area map illustrates sites sampled daily for invasive Asian carp eDNA during a study period.

For further info about the Carterville FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/carterville.pdf>

DNA calibration studies (or ECALS) scoping meeting in

Chicago. Currently, the Corps is leading this ECALS series of studies out of their Vicksburg, Mississippi, lab to determine what alternative ways DNA of Asian carp may enter an aquatic ecosystem and how long DNA may persist in the environment under a variety of conditions. Sam and other scientists at the meeting provided the Corps with structured input and feedback on their studies to efficiently drive towards the best results. When detected in aquatic ecosystems, DNA is generally considered to be from live fish; however, other explanations such as DNA from sewer systems, bird and barge transport, and fish based fertilizers are among alternative ways that DNA may enter an aquatic ecosystem. Questions about the persistence of DNA in aquatic environments and what that may mean are also important to fishery managers and must be addressed. The ECALS study is one of cutting edge science and of great importance to the continued fight to keep invasive Asian carp out of the Great Lakes.

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science.

Lake Sturgeon Egg Development Study

BY OREY ECKES, GENOA NFH

Student Temporary Employment Program (STEP) Employee Orey Eckes will be working with the Genoa National Fish Hatchery (NFH) and University of Wisconsin at La Crosse on a masters project that will consist of evaluating lake sturgeon egg development at various water temperatures, in order to create a timeline of events to better predict and enhance survival and restoration efforts of lake sturgeon populations.

Lake sturgeon eggs were collected in 2011 from the Wolf River and incubated at various water temperatures and evaluated for neural tube formation, hatch and exogenous feeding. Identifying timing of these important egg and fry stages may result in

safer shipment of eggs, and enhance predictability of hatch and first feeding. Being able to predict timing of larval drift in temperature fluctuating riverine systems in accordance to peak fry migration will potentially allow biologists to maximize capturing necessary numbers for restoration efforts in streamside rearing facilities.

Accurately predicting timing of first feeding will allow for smooth transition to hatchery feed, in return increasing survival and maximizing production. Ongoing egg and data collection will continue this spring during the lake sturgeon spawning season on the Wolf River.

For further info about the Genoa NFH: <http://www.fws.gov/midwest/genoa/>

Bourassa Farm/ Iron River Fish and Wildlife Habitat Restoration

BY TED KOEHLER, ASHLAND FWCO

The Fish and Wildlife Service's Partners for Fish and Wildlife Program (PFWP) fish and wildlife habitat restoration projects were completed on the Bourassa property over the last two years. The restorations are located in Bayfield County, Wisconsin, within the Lake Superior Watershed Focus Area for Region 3's PFWP. The work also supports the Upper Mississippi River–Great Lakes Joint Venture wetland restoration acreage goals for northern Wisconsin. Work in 2010 consisted of three wetland



-USFWS/TedKoehler

Youth Conservation Corps crew and agency partners install fish habitat structures in the Iron River, Wisconsin.

restoration sites totaling approximately five acres. As part of the landowner's contribution to the project, they provided equipment operation as well as soil stabilization work on selected areas. This restored wetland complex will provide ideal resting and nesting conditions for many species of migratory waterfowl and songbirds. Species benefiting from the habitat restoration and protection project include migratory waterfowl such as wood ducks, mallards and American black ducks, as well as other wetland associated migratory birds such as sedge wrens and sandhill cranes.

The restoration took place on agricultural land near the Iron River, which flows through the Bourassa property. The Fish and Wildlife Service has an important connection to the Iron River watershed and the local community through the Iron River

National Fish Hatchery, which provides lake trout and coaster brook trout for fishery rehabilitation activities throughout the Great Lakes. Whittlesey Creek National Wildlife Refuge (NWR) also administers a Farm Service Agency easement held on wild areas of the farm. The newly restored wetlands will help slow the flow of sediment into the Iron River by filtering spring runoff from the open agricultural landscape. This sediment trapping action will benefit brook trout and other native fish species in the Iron River watershed.

The second phase of the restoration occurred in 2011 when engineered log structures were installed within the portion of the Iron River which flows through the property. The structures were designed to benefit native brook trout as well as other aquatic life. In the past, poor land management practices have impaired fish habitat on the Iron River. Historic large woody debris was removed from the stream, and higher sediment loads have eliminated or degraded many brook trout spawning sites. This sediment also covers natural resting and cover structure for aquatic species. The resulting habitat benefits from the stream restoration portion of the project include approximately 2,500 feet of brook trout habitat directly impacted, and miles of habitat beyond enhanced through reduced sediment and an improved fishery.

To restore habitat for brook trout and other aquatic life in the project area, pine logs were strategically installed to mimic natural conditions which once existed in the stream. Holes were drilled through the logs and posts driven through both ends. They were then pounded into the substrate by the hard working Youth Conservation Corps crew from the Whittlesey Creek NWR, with help coming from landowner and other partnering agencies. Partners include the landowner, Bayfield County Land and Water Conservation Department, U.S. Department of Agriculture Natural Resource Conservation Service, Whittlesey Creek NWR and Ashland Fish and Wildlife Conservation Office (FWCO). A PFWP Habitat Development Agreement was signed to protect the restored areas for a period of 10 years.

Loss and alteration of aquatic habitats are principal factors in the decline of native fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nation's rivers have altered flows, and 50 percent of waterways fail to meet minimum biological criteria.

For further info about the Ashland FWCO: <http://www.fws.gov/midwest/ashland/>

Carterville FWCO's Habitat Week in Ohio

BY NATHAN CASWELL, CARTERVILLE FWCO

In late October 2011, Project Leader Rob Simmonds and biologist Nate Caswell from the Carterville Fish and Wildlife Conservation Office



-USFWS/NateCaswell

Project Leader Rob Simmonds of the Carterville Fish and Wildlife Conservation Office speaks with Anthony Sasson of "The Nature Conservancy" about the restoration efforts on this section of Big Darby Creek in Ohio.

(FWCO) spent a week in Ohio meeting with partners and learning about ongoing efforts to improve aquatic habitat. The first order of business was a site visit to a stream restoration site near Middleburg, Ohio, on Big Darby Creek, one of the most biologically diverse streams in the state. The Nature Conservancy and its partners have been working for some time to restore a badly degraded section of this stream near the headwaters. A pipeline relocation project funded by the Ohio River Basin Fish Habitat Partnership (ORBFHP) through Carterville FWCO was essential to the ongoing restoration efforts at this site.

The next day, Rob and Nate met with Kraig McPeck of the Partners for Fish and Wildlife Program, to visit the former site of the Williamsport Dam. This small dam removal took place on Deer Creek, a tributary of the Scioto River, and was funded through the National Fish Passage Program in cooperation with the Ohio Private Lands Office.

After that, it was on to Cincinnati for the ORBFHP fall meeting. About 25 people from across the Ohio River basin met to discuss a number of issues including finalization of basin-wide habitat condition assessments, past and future projects funded through the partnership, and future direction and "branding" for the ORBFHP. Before heading home, Nate had an opportunity to meet with Rich Cogen of the Ohio River Foundation to discuss development of additional fish passage projects in Ohio.



-USFWS/RobSimmonds

Biologist Nate Caswell of the Carterville Fish and Wildlife Conservation Office speaks with members of the Ohio River Basin Fish Habitat Partnership.

For further info about the Carterville FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/carterville.pdf>

Congressional Actions

S. 1201 (is) To conserve fish and aquatic communities in the United States through partnerships that foster fish habitat conservation, to improve the quality of life for the people of the United States, and for other purposes. [Introduced in Senate]

S. 52 (is) To establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes. [Introduced in Senate]

H.R. 2373 (ih) To establish a regulatory system and research program for sustainable offshore aquaculture in the United States exclusive economic zone, and for other purposes. [Introduced in House]

S. 1401 (is) To conserve wild Pacific salmon, and for other purposes. [Introduced in Senate]

S. 1494 (is) To reauthorize and amend the National Fish and Wildlife Foundation Establishment Act. [Introduced in Senate]

H.R. 1160 (rh) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Reported in House]

H.R. 2325 (ih) To direct the Secretary of the Interior to establish a program to build on and help coordinate funding for restoration and protection efforts of the 4-State Delaware River Basin region, and for other purposes. [Introduced in House]

H.R. 2351 (ih) To direct the Secretary of the Interior to continue stocking fish in certain lakes in the North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area. [Introduced in House]

H.R. 1160 (eh) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Engrossed in House]

S. 651 (is) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in Senate]

H.R. 1160 (ih) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in House]

S. 1266 (is) To direct the Secretary of the Interior to establish a program to build on and help coordinate funding for restoration and protection efforts of the 4-State Delaware River Basin region, and for other purposes. [Introduced in Senate]

H.R. 2834 (ih) To recognize the heritage of recreational fishing, hunting, and shooting on Federal public lands and ensure continued opportunities for these activities. [Introduced in House]

H.R. 1160 (rfs) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Referred in Senate]

S. 1224 (is) To amend Public Law 106-392 to maintain annual base funding for the Upper Colorado and San Juan fish recovery programs through fiscal year 2023. [Introduced in Senate]

S. 632 (is) To amend the Magnuson-Stevens Fishery Conservation and Management Act to extend the authorized period for rebuilding of certain overfished fisheries, and for other purposes. [Introduced in Senate]

H.R. 521 (ih) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically engineered fish. [Introduced in House]

S. 230 (is) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically-engineered fish. [Introduced in Senate]

S. 1657 (is) To amend the provisions of law relating to sport fish restoration and recreational boating safety, and for other purposes. [Introduced in Senate]

H.R. 520 (ih) To amend the Federal Food, Drug, and Cosmetic Act to require labeling of genetically engineered fish. [Introduced in House]

H.R. 3069 (ih) To amend the Marine Mammal Protection Act of 1972 to reduce predation on endangered Columbia River salmon and other nonlisted species, and for other purposes. [Introduced in House]

H.R. 1646 (ih) To amend the Magnuson-Stevens Fishery Conservation and Management Act to preserve jobs and coastal communities through transparency and accountability in fishery management, and for other purposes. [Introduced in House]

Source is <http://www.gpoaccess.gov/bills/index.html>
Searched database by keyword = "fish"

Midwest Region Fisheries Divisions

National Fish Hatcheries

The Region's National Fish Hatcheries primarily focus on native fish restoration/rehabilitation by stocking fish and eggs, such as pallid and lake sturgeon and by developing and maintaining brood stocks of selected fish strains, such as lake trout and brook trout.

Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, stock rainbow trout in fulfillment of federal mitigation obligations and assist with recovery of native mussels and other native aquatic species.

Fish and Wildlife Conservation Offices

Fish and Wildlife Conservation Offices conduct assessments of fish populations to guide management decisions, perform key monitoring and control activities related to invasive, aquatic species; survey and evaluate aquatic habitats to identify restoration/rehabilitation opportunities; play a key role in targeting and implementing native fish and habitat restoration programs; work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's Partners for Fish and Wildlife and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key interagency fisheries databases; provide

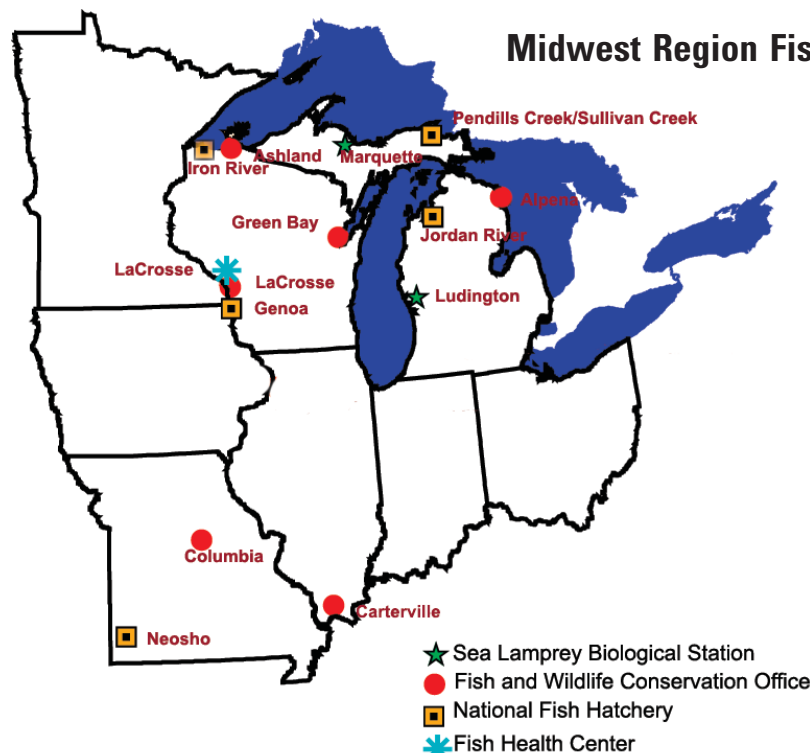
technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydro-power operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

Sea Lamprey Biological Stations

The Fish and Wildlife Service is the United States Agent for sea lamprey control, with two Biological Stations assessing and managing sea lamprey populations throughout the Great Lakes. The Great Lakes Fishery Commission administers the Sea Lamprey Management Program, with funding provided through the U.S. Department of State, U.S. Department of the Interior, and Fisheries and Oceans Canada.

Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state and tribal hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health; examines and certifies the health of captive hatchery stocks; and, performs a wide range of special services helping to coordinate fishery program offices and partner organizations.



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Fish Tails

“Fish Tails” includes articles that are included in field station reports that are not published in the “Conservation Briefs.” These articles are categorized by focus area and includes the article title, author and field station. The website link, where the full article can be viewed, is highlighted in blue type.

Partnerships and Accountability

➤ [Building Partnerships and Meeting the Goals of Migratory Bird Joint Venture Habitat Conservation Strategies in Northern Wisconsin](#)

- Ted Koehler, Ashland FWCO

Aquatic Species Conservation and Management

Aquatic Invasive Species

Public Use

Cooperation with Native Americans

Leadership in Science and Technology

Aquatic Habitat Conservation and Management

Workforce Management

- [Hawaii Pacific University Student comes “Home” to Genoa NFH for the Winter](#)
- Jennifer Bailey, Genoa NFH

Genoa Gets Social!

BY ANGELA BARAN, GENOA NFH

With ever expanding social networks, the Fish and Wildlife Service is now encouraging offices to use the various media outlets to get their messages out to the public. Genoa National Fish Hatchery (NFH) started a Facebook page in early 2011 with a modest 6 followers. Since then, the page has slowly been gaining a following and now has over 140 people liking the page. Amazingly, the people have not only been from around the hatchery but around the world. The hatchery updates are now being seen by people in over 10 different countries and speaking over 4 different languages. The Fish and Wildlife Service Journal is now updated and linked to the various social networks including Facebook, Twitter and YouTube. This allows a link to post instantly on Facebook and Twitter, taking the reader to the article in the Journal and for videos to be linked to the Journal from YouTube. You can find Genoa NFH on Facebook at:

<http://www.facebook.com/#!/GenoaNFH>.